



High-performance Ringlayer Mixer CoriMix® CM

LÖDIGE – ALWAYS THE RIGHT MIX

CoriMix® CM – the versatile, robust and economical mixer

Main fields of applications

- Agrochemicals
- Materials processing
- Particle boards
- Fiber boards
- Plastics
- Paper
- Food / Fine foods
- Animal feed
- Detergents
- Ashes / Dusts

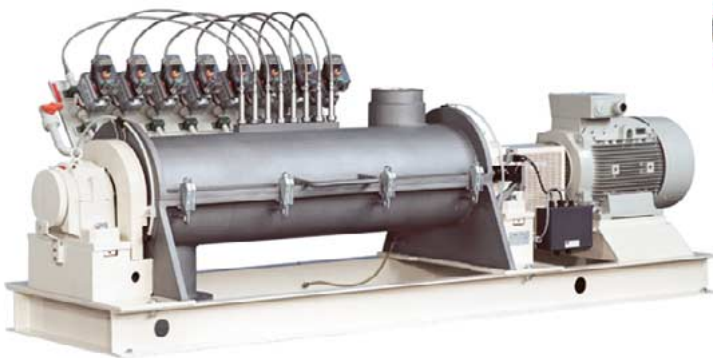
Typical operations

- Mixing
- Wetting
- Densification
- Granulation
- Temperature regulation
- Dispersing
- Resination
- Agglomeration
- Disintegration
- Melting

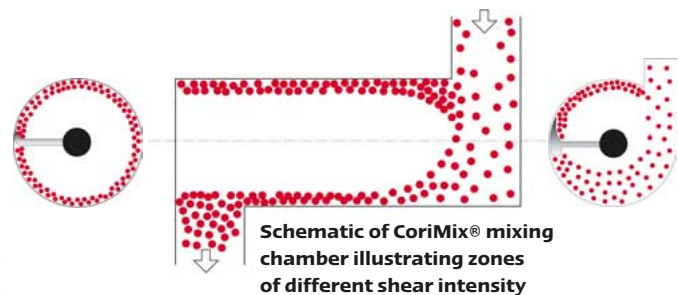


CoriMix® CM 20 design for food processing

CoriMix® CM 175 with special liquid dosing device



CoriMix® CM mixing tool designed for pharmaceutical application



Operating principle

The system is based on the high peripheral speed of the mixing mechanism of up to 40m/s, the resultant centrifugal force forming a concentric annular layer of product. The profile of the annular layer features a high mixing intensity, which is caused by the high differential speed between the rotating specially shaped mixing tools and the mixer wall. The product is moved through the mixing chamber in a plug-like flow, with the residence time being influenced by the degree of filling, the number of revolutions, the geometry and adjustment of the mixing tools as well as the mixing vessel length and the volume flow rate.

The system offers the possibility to divide the mixing chamber into zones of different shear intensity, thus permitting system optimisation for varying product properties.

The liquid components are directly introduced into the annular layer. This ensures a homogeneous distribution within the mixture and avoids wetting of the mixer wall and mixing shaft.

For mixing operations with intensive premixing and safe remixing, the CoriMix® is combined with a continuous Ploughshare® Mixer or a mixer type TurbuMix®.

The convincing advantages

The high-performance mixer CoriMix® CM excels with:

- Wide range of applications
- Simple operation
- High reliability and safety
- Easy to clean and service
- Compact design with high power density
- Long life and low maintenance



CoriMix® CM 1.400
with feeding hopper

Adding of liquids

After feeding of dry components into the mixing chamber, the liquid constituents are added separately. During ► **addition from the outside**, the liquid is introduced by single or mixed phase nozzles tangentially from the top into the annular layer. In particular cases, the introduction can be carried out pressure free through inlet pipes. During ► **addition from the inside**, the liquid is introduced by the rotating hollow shaft through special perforated mixing tools directly into the annular layer.

Both liquid addition systems avoid undesirable wetting of the mixer wall and mixing shaft.

Design features

The mixing vessel is divided axially over the entire length; this offers many advantages with respect to cleaning, easy maintenance and simple optimisation of the mixing system.

For the processing of abrasive products, special composites, wear-resistant alloys and armourings such as e.g. DraisCoat® are used to ensure long wear life. Such wearout protection consisting of easy exchangeable halves can be put on the drum inside.

Where products have a tendency to form wall deposits, the product chamber can be lined with anti-adhesive materials.

A large surface area for heat exchange is achieved by a double jacket at the mixing vessel and the heated or cooled mixing mechanism (including the mixing tools). The intensive product contact and product exchange at the vessel wall result in a highly efficient heat transmission.

Constant energy conversion

Power input can be adjusted to provide consistent mix quality, especially if there are fluctuations in the product supply. This is automatically controlled by adjusting the position of mixer discharge flap to maintain the specific motor power consumption.



CoriMix® CM 5 Laboratory mixer

CoriMix® CM with non-stick lining. Liquids are added without pressure by rotary spraying using hollow shaft and perforated mixing tools.





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